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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/571,295

04/05/2007

Gerrit Wolk

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22428 7590 06/09/2009
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EXAMINER

WALBERG, TERESA J

ART UNIT

PAPER NUMBER

3744

MAIL DATE

DELIVERY MODE

06/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/571,295	Applicant(s) WOLK, GERRIT	
	Examiner Teresa J. Walberg	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/31/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 10 of U.S. Patent No. 7,147,047 to Wolk. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations "laterally offset" and "completely laterally offset" are not considered to be patentably distinct.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozaki et al (6,213,196) in view of Emrich et al (2001/0027857).

Ozaki et al disclose a heat exchanger capable of use in a motor vehicle and having flat tubes (111, 121 in Fig. 3) through which fluids can flow and which can be externally exposed to a second fluid that passes through the heat exchanger and which are arranged approximately parallel to one another and transversely to the direction of flow of the second fluid in at least one row (Fig. 3), the flat tubes in a row being spaced apart forming flow paths for the second fluid (Fig. 3), cooling fins (112, 122) being arranged in the flow paths between the flat tubes (111, 121), the fins are arranged in series in the direction of flow of the

second fluid and laterally offset in relation to one another (Figs. 3 and 4), multiple corrugated fins arranged in series are formed from a common strip (Fig. 4), the surfaces of the corrugated fins are arranged fundamentally parallel to the direction of flow of the second fluid (Figs. 3 and 4), multiple offset corrugated fins are similarly shaped (Figs. 3 and 4), at least one of the corrugated fins has gills for directing the second fluid (Figs. 3 and 4), two successively offset fin sections are fundamentally parallel to one another (Figs. 3 and 4), the fin sections being fundamentally perpendicular to the flat tubes (Figs. 3 and 4), the corrugated fins extend for an equal or similar distance in the main direction of flow of the second fluid (Fig. 3), different rows of tubes have different fluids flowing through them (Fig. 3), the tubes being arranged in at least two rows fundamentally parallel to one another and transversely to the direction of flow of the second fluid (See Fig. 3), and the fins being corrugated (Fig. 4).

Ozaki et al does not disclose one fluid flowing through more than one row of tubes. However, it would have been obvious to connect the tubes of Ozaki et al to provide one fluid flowing through more than one row of tubes, the motivation being to increase the amount of heat transfer with the fluid.

Ozaki et al does not disclose a fin being completely laterally offset with respect to another fin. Emrich et al discloses a heat exchanger including fins completely laterally offset with respect on other fins (see 36 and 38 in Fig. 2).

It would have been obvious in view of Emrich et al to provide completely laterally offset fins in the heat exchanger of Ozaki et al, the motivation being to improve the rate of heat transfer.

4. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozaki et al (6,213,196) in view of Emrich et al (2001/0027857) and further in view of Ishida et al (4,580,624).

Ozaki et al in view of Emrich et al, as discussed above, disclose a heat exchanger having the claimed structure with the exception of all gills of a fin section bounded by two flat tubes being angled in a same direction, the gills of two successively offset fin sections being angled in the same direction, the gills of two successively offset fin sections being angled in opposite directions.

Ishida et al discloses (see Fig. 8) aligning fin gills in each of the recited manners. It would have been obvious in view of Ishida et al to align the gills on the fins of Ozaki et al in view of Emrich et al in any desired combination of directions, the motivation being to adjust the flow pattern as desired based on the intended use of the device.

5. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 571-272-4790. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Teresa J. Walberg/
Primary Examiner, Art Unit 3744

/TW/